

REMARKS/ARGUMENTS

In this amendment claim 77 is cancelled, claims 74, 76 and 80 are amended and claims 83-85 are added. Amendment or cancellation of claims is without prejudice to future prosecution of the originally claimed subject matter. Upon entry of this amendment claims 71-74, 76, and 79-85 will be under examination. Claims 71, 72, 73, 79, 81 and 82 are rejected only under the doctrine of obviousness type double patenting. This rejection is overcome by the terminal disclaimers submitted herewith.

The claim amendments are believed to add no new matter. Support for "mammalian promoter or mammalian viral" finds support in the specification in at least paragraphs [0181] - [0183].¹ Support for "at least 100" and "at least 500" contiguous amino acids finds support in the specification in at least paragraphs [0204], [0299] and [0476], describing immunogenic polypeptides with substantial sequence identity to all or a contiguous portion of SEQ ID NO:2 (e.g., para. 0204 lines 19-20) and teaching that substantial sequence identity may be 100% amino acid identity over a length of at least about 100 or 500 amino acids (e.g., para 0476 lines 14-20 and 43-49).

Interview

Applicants thank Examiners Peter Reddig, Karen Canella and Larry Helms for the courtesies shown the undersigned and attorney Leslie Mooi during an interview on August 12, 2008. During the interview the claim amendments and new claims were discussed. Copending applications No. 10/877,124 and 11/207,078 were also discussed.

Drawings

The drawings were objected to because reference characters were not mentioned in the description. This objection is overcome by the amendments to the Specification.

¹ All references to paragraph numbering refer to US patent application publication No. 2003/0096344.

Double Patenting

Claims 71-74, 786-77 and 79-82 were rejected under the doctrine of obviousness-type double patenting in view of U.S. Pat. Nos. 6,261,836; 7,262,288; 6,927,285; 6,921,664 and application No. 11/894562. Application No. 11/894562 is now abandoned. The rejection is overcome by a terminal disclaimer to US Pat. No. 6,261,836; 7,262,288; 6,927,285; and 6,921,664. Applicants also submit herewith a terminal disclaimer to copending US Patent Application No. 09/721477.

Rejections under 35 USC 102(a)

Claims 74, 76, 77 and 80 were rejected as allegedly anticipated by the expressed sequence tag AA281296. The rejection of claim 77 is mooted by the cancellation without prejudice of the claim.

The Cited Reference

AA281296 is an expressed sequence tag (EST) that consists of 389 nucleotide base-pairs. As explained in the specification (e.g., paragraphs [0062], [0096], [0496] and elsewhere) the published AA281296 EST sequence was generated from an I.M.A.G.E. Consortium clone designated clone #712562 (I.M.A.G.E. Consortium, Human Genome Center, DOE, Lawrence Livermore National Laboratory, Livermore, CA). The complete nucleotide sequence of clone #712562, was determined by the Applicants and is provided in Figure 18. Clone #712562 encodes a 259 residue protein provided in Figure 19. As explained in the specification, this sequence differs from SEQ ID NO:2 (hTRT) because RT motifs B', C, D, and E are contained in a different open reading frame than the more N-terminal RT motifs, and the distance between RT motifs A and B was substantially shorter than that of SEQ ID NO:2. See the specification at the cited paragraphs. The AA281296 sequence is contained in a modified pT7T3 vector (see Office Action paragraph 6).

The Claims

The cited reference did not anticipate the claims as pending.

Claims 74 and 76 are amended to clarify that the claimed compositions comprise a nucleic acid sequence operably linked to "*a mammalian promoter or mammalian viral promoter*". The cited reference does not describe a nucleic acid that encodes at least 100 contiguous amino acids of

SEQ. ID NO:2 and which is operably linked to a mammalian promoter or mammalian viral promoter. Rather, the reference described an uncharacterized EST linked to a T7 and T3 promoters. Thus, claims 74 and 76 are not anticipated by the reference.

Moreover, there was no suggestion in the art to modify AA281296 or the clone #712562 insert to arrive at the claimed composition. As the Office is aware, the NCBI dbEST database contained hundreds of thousands of EST sequences in 1997. Nothing in the art or knowledge of one of skill in the art would have motivated one of skill to link the AA281296 sequence to a mammalian or mammalian viral promoter. The clone #712562 insert was uncharacterized and unsequenced prior to Applicants' invention. Nothing in the art or knowledge of one of skill in the art would have motivated one of skill to link the insert sequence to a mammalian or mammalian viral promoter.

Claim 80 has been amended to recite that the encoded polypeptide comprises "at least 500 contiguous amino acids of SEQ. ID NO:2". This is not taught or suggested in the prior art. New claims 83, 84 and 85 also recite that the encoded polypeptide comprises at least 500 contiguous amino acids of SEQ. ID NO:2, and are similarly not described or suggested in the prior art.

Applicants submit that these amendments overcome the rejection and request the rejection be withdrawn.

Rejections under 35 USC 112, First Paragraph

Claims 74, 76, 77 (now cancelled), 80 and 82 were rejected as allegedly not described. Applicants disagree with the reasoning set forth by the Office Action in articulating the rejection, but believe it is overcome by the amendments to the claims. Specifically, as discussed in the Office Action, the Office believed that encoded peptides as short as 10 residues might not elicit an immune response. As discussed during the August 12th interview, this basis of rejection is overcome by the amendment of claims 74, 77 and 80 to recite that the encoded polypeptide comprises at least 100 or at least 500 contiguous residues of SEQ ID NO:2. In addition, Applicants thank Examiner Reddig for the courtesy of a follow-up telephone call on August 29, 2008 with the undersigned and Leslie Mooi in connection with copending application

App. No. 10/044,692
Response to Office Action dated June 6, 2008

No10/044,692. In this telephone call Examiner Reddig confirmed that, on reconsideration, claims directed to a short immunogenic peptide (consisting of 8 or more consecutive amino acids of SEQ. ID NO:2, or 10 or more consecutive amino acids of SEQ. ID NO:2 would be patentable under 35 USC 112, first paragraph).

For both of these reasons it is believed the claims as pending are allowable, and it is respectfully requested this rejection be withdrawn.

CONCLUSION

For the reasons provided above, Applicants respectfully request that the claims now pending be examined and a Notice of Allowance issued.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 650-462-5330.

Respectfully submitted,



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Encls. Terminal Disclaimers

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